

		*****	* * *	** *****	* *****	**
Plant	At	FYKVEAIVRP	WRIQVSSAL	LKIGIRGVTV	SDVRGFGAOG	
	Ric	FYKVEAILRP	WRVSCVSSAL	LKIGIRGVTV	SDVRGFGAOG	
	Kp	MKKIDAIKIP	FKLDDVREAL	AEVGITGMTV	TEVKGFGROK	
	Ec	MKKIDAIKIP	FKLDDVREAL	AEVGITGMTV	TEVKGFGROK	
	RL	MKKIEAIKIP	FKLDEV-SP	SGVGLOGITV	TEAKGFGROK	
Bacteria	Bj	MKKIEAIKIP	FKLDEV-SL	SGVGLOGITV	TEAKGFGROK	
	Az	MKKIEAIKIP	FKLDEVKEAL	HEVGIGKITV	TEAKGFGROK	
	Rc	MKKVEAIKIP	FKLDEVKEAL	QEAGIGGLSV	IEVKGFGROK	
	Sy	MKKIEAIIRP	FKLDEVKIAL	VNAGIVGMTV	SEVRGFGROK	
Archaeobacteria	Mt1	MKMIKATVRP	DKVDDIVDSL	ENAGYPAFTK	INSVGRGKQG	
	Mt2	MKEVIATIRP	NTVSKTVKAL	DVVGFPVMTM	AECFGGKQK	
		1				
			↓			
		* ***	*** *	* * *	** *****	** ** *
Plant	At	GSTERHGCSE	FSEDKFVAKV	KMEIVWKKDQ	VESVINTIIE	
	Ric	GSTERQGCSE	FSEDKFVAKV	KMEIVVSKDQ	VEDVIEKIIE	
	Kp	GHTELYKGAE	YMVD-FLPKV	KIEIVVTDDI	VDTCDVTIIR	
	Ec	GHTELYKGAE	YMVD-FLPKV	KIEIVVPDDI	VDTCDVTIIR	
	RL	GHTELYKGAE	YVVD-FLPKV	KVEVVLADEN	AEAVIEAIRK	
Bacteria	Bj	GHTDLYTGAE	YIVD-FLPKV	KIEIVIGDDL	VERAIDAIIR	
	Az	GHTELYKGAE	YVVD-FLPKV	KIEVVMEDSL	VERAIEAIQQ	
	Rc	GHTELYKGAE	YVVD-FLPKV	KIEVYLPDEM	VDIAIEAIVG	
	Sy	GHTERYHGCSE	YTVE-FLOKL	KLEIIVVEDAQ	VDTVIDKIVA	
Archaeobacteria	Mt1	GLKVGE---I	FY-D-ELPKT	ILLIAVNDDI	VDEVVGLIKS	
	Mt2	GYEEGEKEGR	FIK--YIPKR	LISIVVDDAD	VPLVVGIISK	
		51				
		*****	*****	* *****	** *	*
Plant	At	GARTGEIGDG	KIFVLPVSDV	IRVRTGERGE	KAE	
	Ric	EARTGEIGDG	KIFLLPVSDV	IRVRTGERGD	KAE	
	Kp	TAQTGKIGDG	KIFVFDVARV	IRIRTGEEDD	AAI	
	Ec	TAQTGKIGDG	KIFVFDVARV	IRIRTGEEDD	AAI	
	RL	AAQTGRIGDG	KIFVSNVEEV	IRIRTGETGI	DAI	
Bacteria	Bj	AAQTGRIGDG	KIFVSNIEEA	IRIRTGESGL	DAI	
	Az	AAHTGRIGDG	KIFVTPVEEV	IRIRTGEKGG	DAI	
	Rc	AARTEKIGDG	KIFVSSIEQA	IRIRTGETGE	DAV	
	Sy	AARTGEIGDG	KIFVSPVDQT	IRIRTGEKNA	DAI	
Archaeobacteria	Mt1	SASTGNFGDG	KIFIQPI TEA	YTIRTGETGI	---	
	Mt2	VNRTGSFGDG	RIFVLPVEEA	IRVRTGETGE	IAI	
						112

FIG. 1A

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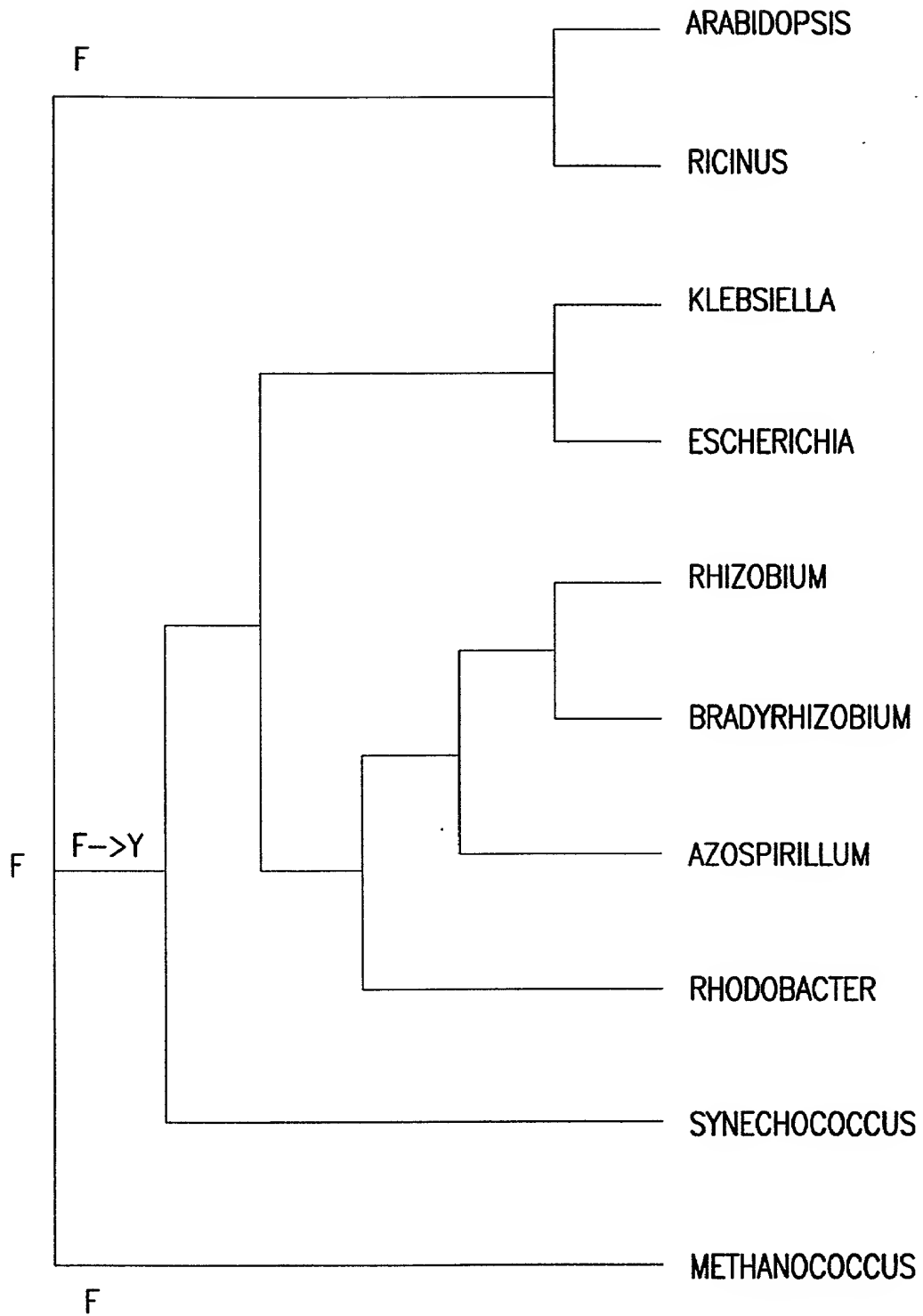


FIG. 1B

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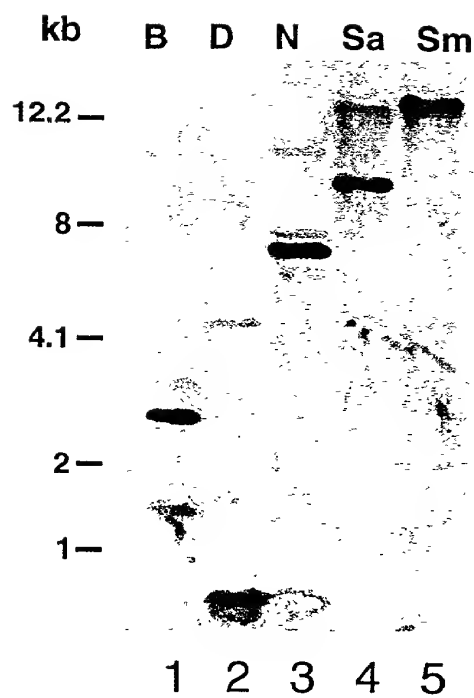


FIG.2

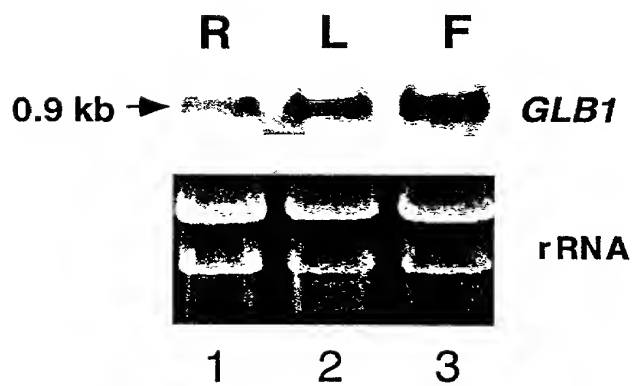


FIG.3

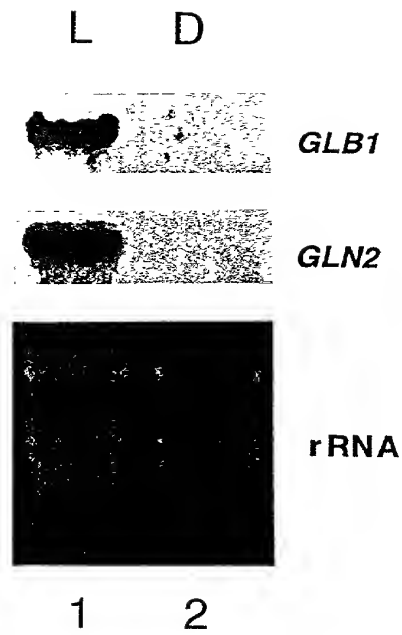


FIG.4A

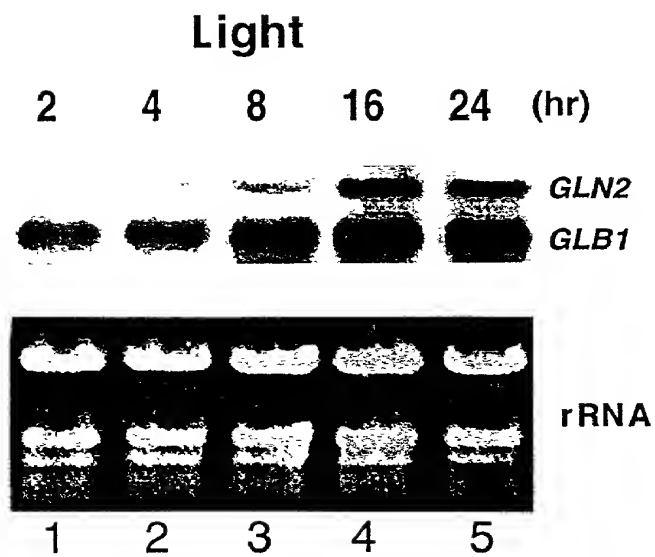


FIG.4B

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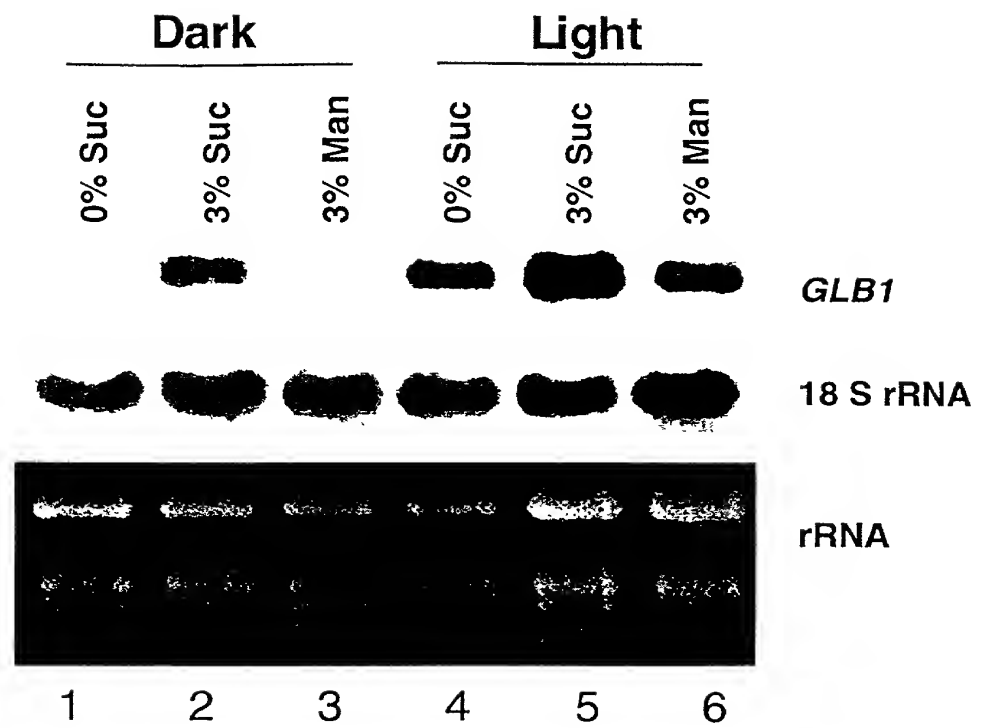
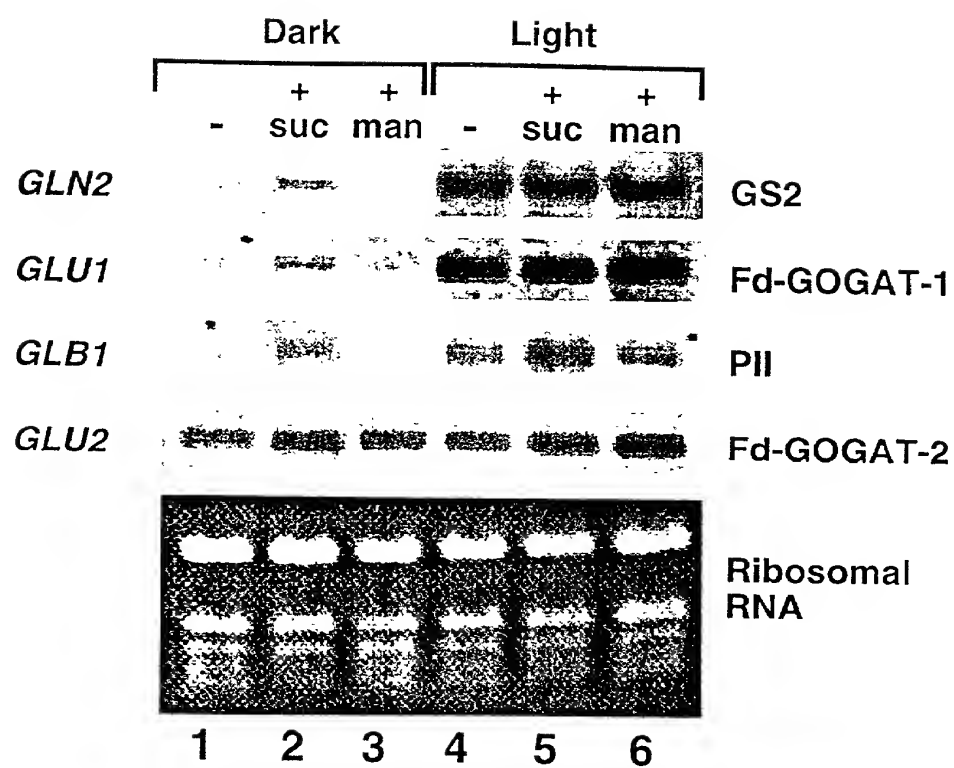


FIG.5

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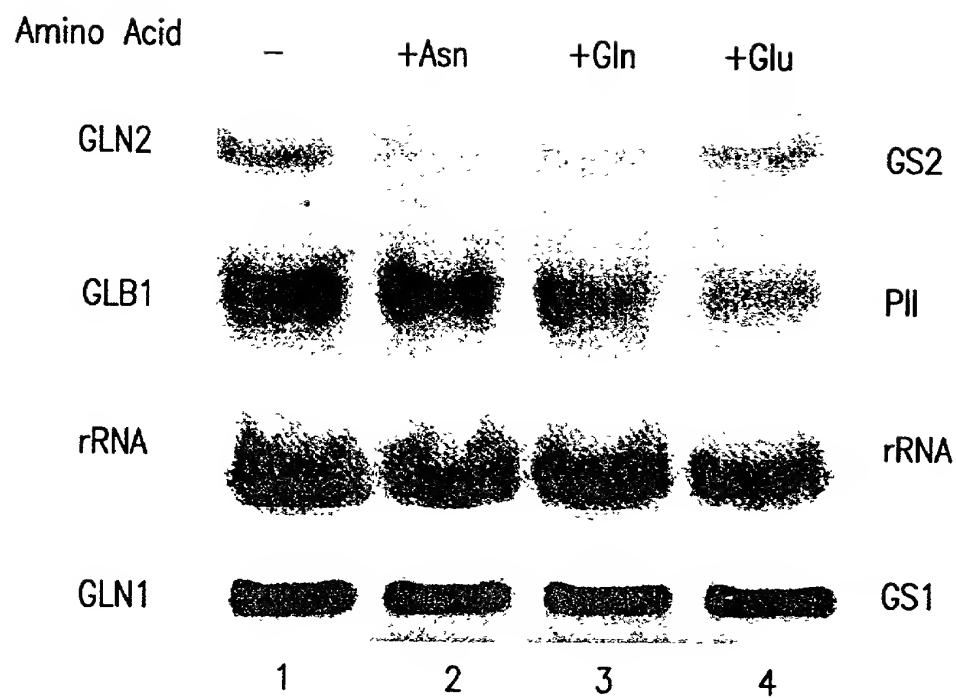


FIG.8

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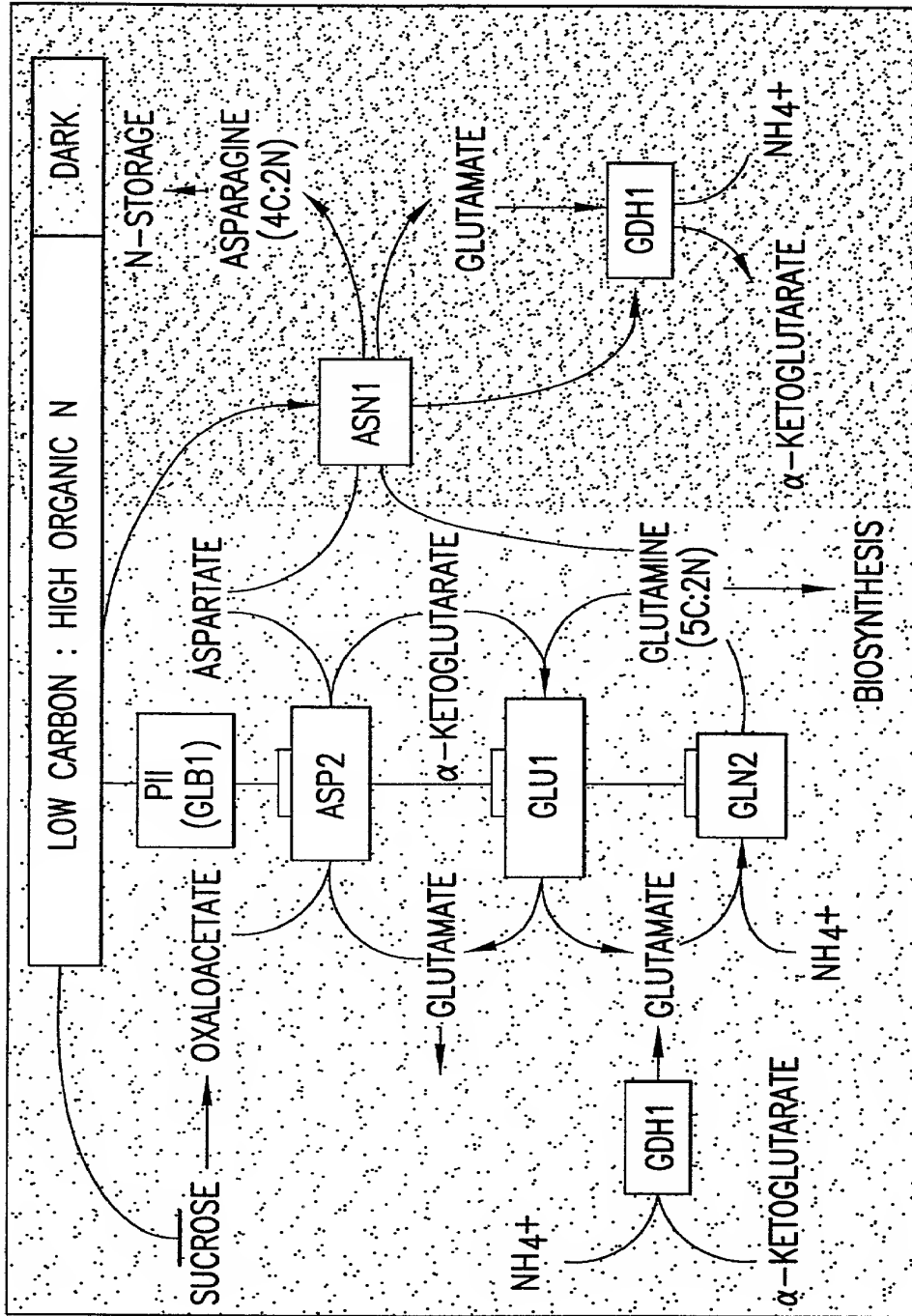


FIG.9

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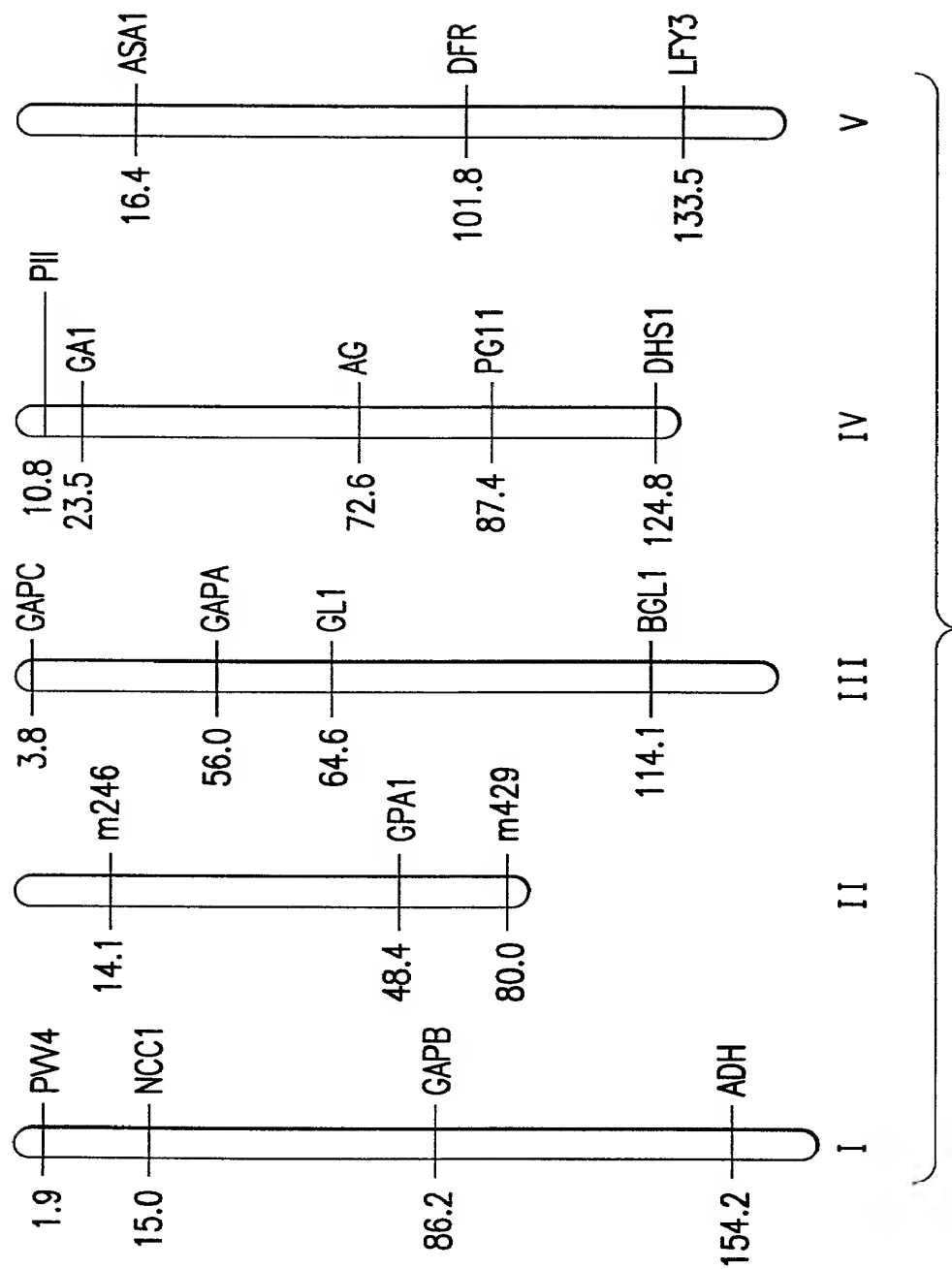


FIG.10

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11 413

1 ctgaaagttg tgttaaaaaa aaaactagaa tcatggcggc gtcaatgacg
51 aaacccatct caataacttc tctcggtttc tattctgacg gaaagaacat
101 tgctttctct gattgcattt cgatttggtc tggattcaga cattcccgac
151 catcttgccct cgatttggtc acaaagtcac cgagtaataa cagtcgtgtt
201 ttacctgtcg ttagtgccca aatatcttct gattatattc cagactcgaa
251 attttacaag gtggaagcaa ttgtcagacc atggagaatc cagcaagttt
301 catcggcttt actgaaaatc gggattcgag gtgttactgt ttctgatgtg
351 agagggtttg gtgcacaagg aggttctacc gagagacacg gtggctctga
401 gttctcggaa gacaaatttg ttgctaaagt taagatggaa atcgttggtt
451 agaaagacca agtggaatct gtaatcaaca caataattga aggagcaagg
501 acaggagaga ttggtgatgg caagattttt gttttgcctg tgtcagatgt
551 cataagagtt aggacagggtg agcgtgggga gaaagcagag aagatgactg
601 gtgatatgct ttcaccgtct taggaacaaa cagagctcaa gaatggtttt
651 tttttttttc atttcgggtct ctagattctg cgaataataa tgaatggagt
701 ctgtgttttg tttcatgttg aatcgatcaa gatgtgtttt taactgtaca
751 tgaattatgc agaaacatct gtcctgggtc tcagacatcg aaactctgtt
801 cctaataaaa aaaaaaa

FIG. 12

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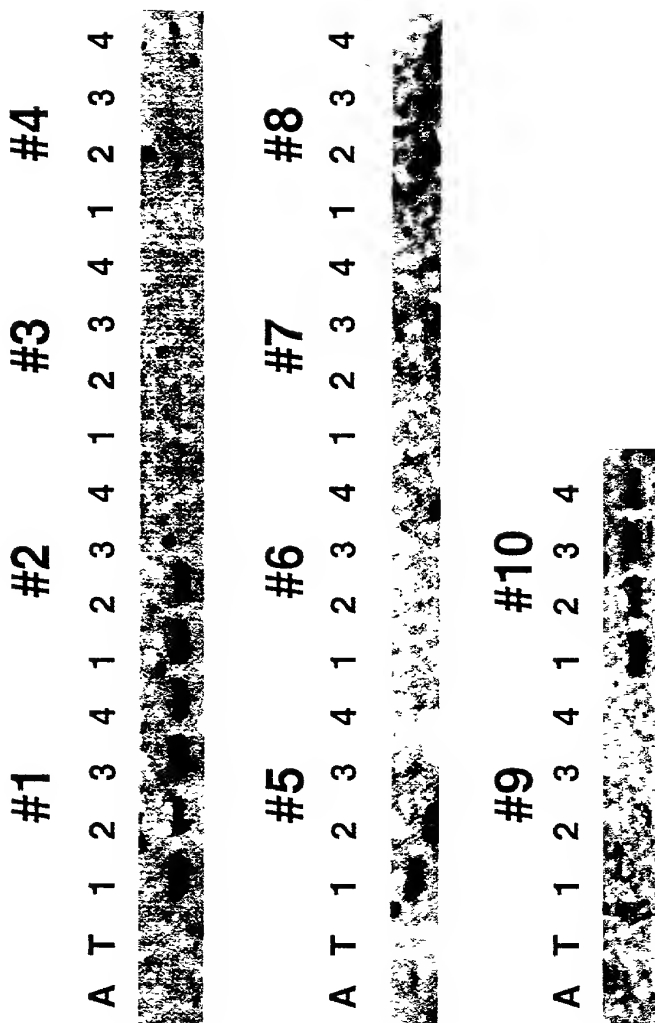


FIG.11

1 GCGGTGTCGG CCGCTCTAGA ACTAGTGGAT CCCCCGGGCT GCAGGAATTC
51 GGCACGAGGC TACTGCGAAA CTGGGCTTGC TCACTCCTCT TCATTCTAAT
101 AACATCAAGA AAGAATTCCC TGTTTTTGAT TTCAGTTTGT TTTGTCCAGA
151 GCTTAGACAT TCTCGGTTTT CTCACTTTAA CACCGCGGTC AAGCGCGTAA
201 GATATGCCCC CGTCGTTTCT GTGATTAATG CCCAAAGCTC GCCTGACTAC
251 ATTCCTGATG CTAAATTCTA CAAAGTGGAA GCAATTCTCA GGCCCTGGCG
301 AGTCTCGCAA GTTTCCTCGG CTTTGCTAAA AATTGGTATT CGAGGTGTTA
351 CTGTTTCTGA TGTTTCGAGGT TTTGGTGCTC AAGGTGGTTC AACTGAGAGG
401 CAGGGCGGCT CAGAATTTTC TGAAGACAAG TTTGTTGCTA AAGTTAAGAT
451 GGAGATCGTG GTTAGCAAAG ACCAGGTTGA GGATGTTATA GAAAAAATCA
501 TTGAGGAGGC AAGAACTGGA GAGATTGGAG ACGGCAAGAT TTTCTTGCTG
551 CCTGTTTCAG ATGTAATAAG AGTCCGCACT GGTGAGCGGG GTGATAAGGC
601 TGAGAGGATG ACAGGAGGGC GATCTGACAT GAGTACTTCT GCTTGACTGC
651 TGTGACCAGC AATATAGCAT TCAGGACTAA CTGTCCTTTG AGAAAGCCCC
701 GCCCTTATTA GCCATTATCC AGTATAGCTT GATAATTTGA ATTTTTTGT
751 TTCTTAACTA AAGAAACAAA GATCTTTTCA TTATCCTGTT GATGATAATT
801 GAAAACGGAA GGATCGCGAA TTTGTTCAAG TGCTTGCAAG ATAAATAACA
851 AGAAGAGGAG TAATGTTAAC AAAAAAAAAA AAAAAAAAAA ACTCGAG

FIG.13